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EXAMINER

DINH, KHANH Q

ART UNIT PAPER NUMBER

2151

DATE MAILED: 11/01/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/552,985

Applicant(s)

ALLAVARPU ET AL.

Examiner

Khanh Dinh

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 24 July 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-31 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-31 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

**DETAILED ACTION**

1. This is in response to the Response filed on 7/14/2005. Claims 1-31 are presented for examination.

***Claim Rejections - 35 USC § 112***

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

In claim 8, the term, "substantially" is a relative term which render the claim indefinite. The term "substantially" is not defined by the claim, the specification does not provide a standard for ascertaining the requisite degree, and one of ordinary skill in the art would not be reasonably apprised of the scope of the invention.

***Claim Rejections - 35 USC § 102***

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) do not apply to the examination of this application as the application being examined was not (1) filed on or after November 29, 2000, or (2) voluntarily published under 35 U.S.C. 122(b). Therefore, this application is examined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

4. Claims 1-5, 7-12, 14 and 17-31 are rejected under 35 U.S.C. 102(e) as being anticipated by Carre, US pat. No.6,282,579.

As to claim 1, Carre discloses a method for managing a network, the method comprising:

a client (Agent 1 fig.3a) generating a request for type information for an attribute or event, wherein the request is expressed in an interface definition language, wherein the interface definition language is operable to define object interfaces across a plurality of platforms and across a plurality of programming languages [see abstract, fig. 2a, 2b, col.3 lines 18-55 and col.5 lines 4-38).

sending the request for type information to an object request broker (Object Request Broker ORB of fig.3a) and a metadata gateway (CMISE Gateway fig.3a) receiving the request for type information from the object request broker (see col.5 lines 39-65).

reading the type information from a metadata repository (CMISE/IDL fig.3), wherein the type information is stored in a database format in the metadata repository and translating the type information from the database format to the interface definition language (protocol translation, see col.6 lines 1-29).

the metadata gateway sending the translated type information to the object request broker and the client receiving the translated type information for the attribute or event through the object request broker, wherein the translated type information is expressed in the interface definition language (translation of COBRA address types from OSI types, see col.6 lines 10-35).

As to claim 2, Carre discloses translating the type information from the database format to an abstract syntax notation and then translating the type information from the abstract syntax notation to the interface definition language (using semantic conversions, see col.1 lines 34-55 and col.5 line 60 to col.6 line 21).

As to claim 3, Carre discloses translating an abstract syntax notation (ASN1) (see col.5 lines 39-58).

As to claim 4, Carre discloses translating the type information from the abstract syntax notation to an object specification language and translating the object specification language to the interface definition language (semantic conversions, see col.1 lines 34-55 and col.5 line 60 to col.6 line 21).

As to claim 5, Carre discloses sending the request for type information to an object request broker, the metadata gateway receiving the request for type information from

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the object request broker, the metadata gateway sending the translated type information to the object request broker (see fig.3a, 3b, col.5 lines 4-58 and col.6 lines 15-35).

As to claim 7, Carre discloses the metadata gateway is implemented on a single server computer system (see fig.1, col.3 lines 18-55 and col.5 lines 4-42).

As to claim 8, Carre discloses the metadata gateway is distributed over a plurality of servers, wherein each of the plurality of servers presents a substantially identical view of the metadata gateway (see fig.3b, col.4 lines 17-62 and col.5 lines 4-58).

As to claim 9, Carre discloses the interface definition language is class independent (see fig.3b, col.4 lines 17-62 and col.5 lines 4-58).

As to claim 10, Carre discloses a method for managing a network, the method comprising:

a client (Agent 1 fig.3a) generating a request to encode type information for an object, attribute, or event, wherein the request is expressed in an interface definition language, wherein the interface definition language is operable to define object interfaces across a plurality of platforms and across a plurality of programming languages [see abstract, fig. 2a, 2b, col.3 lines 18-55 and col.5 lines 4-38).

sending the request to an object request broker (ORB fig.3a) and a metadata gateway (CMISE Gateway fig.3a) receiving the request to encode the type information

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from the object request broker (ORB fig.3) and translating the type information from the interface definition language to a database format receiving the request for type information from the object request broker (using IDL protocol translation services, see col.5 lines 39-65).

storing the type information in a metadata repository (CMISE/IDL fig.3), wherein the type information is stored in a database format in the metadata repository (translation of COBRA address types from OSI types, see col.6 lines 10-35).

As to claim 11, Carre discloses translating the type information from the database format to an abstract syntax notation and then translating the type information from the abstract syntax notation to the interface definition language (using semantic conversions, see col.1 lines 34-55 and col.5 line 60 to col.6 line 21).

As to claim 12, Carre discloses translating the type information from the abstract syntax notation to an object specification language and translating the object specification language to the interface definition language (semantic conversions, see col.1 lines 34-55 and col.5 line 60 to col.6 line 21).

As to claim 14, Carre discloses a network management system comprising:

a metadata repository (CMISE/IDL fig.3a) comprises metadata concerning object classes for a plurality of managed objects, wherein the metadata comprising information expressed in a database format, and wherein the managed objects correspond to

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managed devices (see abstract, figs.2a, 3a, abstract, col.3 lines 18-55 and col.5 lines 4-38).

a metadata gateway (CMISE Gateway fig.3a) which is communicatively coupled to the repository and to an object request broker (ORB fig.3a), wherein the metadata gateway is operable to send and receive the metadata from the database, wherein the metadata gateway provides translation of the metadata to and from the database format and an interface definition language (using IDL protocol translation services, see col.5 lines 39-65).

wherein the interface definition language is operable to define object interfaces across a plurality of platforms and across a plurality of programming languages (translation of COBRA address types from OSI types, see col.6 lines 10-35).

As to claim 17, Carre discloses a library of data types expressed in an abstract syntax notation, wherein the abstract syntax notation comprises a metadata notation language; a plurality of object types, wherein each object type comprises one or more of the data types from the library of data types; and an interface to the plurality of object types, wherein the interface is operable to provide one or more clients with access to the metadata as expressed in the interface definition language (see fig.2a, 3a, col.4 lines 7-62 and col.5 line 39 to col.6 line 35).

As to claims 18-19 and 21, Carre discloses plurality of object types is a programming-language independent and platform independent interface including



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CORBA objects and COBRA ORB (see fig.2a, 3a, col.4 lines 7-62 and col.5 line 39 to col.6 line 35).

As to claim 20, Carre discloses the object request broker is configurable to be accessed by a plurality of network management clients to obtain the metadata as expressed in the generic interface (see fig.2a, 3a, col.4 lines 7-62 and col.5 line 39 to col.6 line 35).

As to claim 22, Carre discloses a carrier medium comprising program instructions, wherein the program instructions are computer-executable to implement:

- a metadata gateway (CMISE Gateway fig.3a) receiving a request for type information from an object request broker (ORB fig.3a) (see abstract, figs.2a, 3a, abstract, col.3 lines 18-55 and col.5 lines 4-38),

- reading the type information from a metadata repository (CMISE/IDL fig.3a), wherein the type information is stored in a database format in the metadata repository and translating the type information from the database format to an interface definition language (using IDL protocol translation services, see col.5 lines 39-65), and

- using the metadata gateway sending the translated type information to the object request broker (translation of COBRA address types from OSI types, see col.6 lines 10-35).

As to claim 23, Carre discloses translating the type information from the database format to an abstract syntax notation and then translating the type information from the

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abstract syntax notation to the interface definition language (using semantic conversions, see col.1 lines 34-55 and col.5 line 60 to col.6 line 21).

As to claim 24, Carre discloses translating an abstract syntax notation (ASN1) (see col.5 lines 39-58).

As to claim 25, Carre discloses translating the type information from the abstract syntax notation to an object specification language and translating the object specification language to the interface definition language (semantic conversions, see col.1 lines 34-55 and col.5 line 60 to col.6 line 21).

As to claim 26, Carre discloses the interface definition language is class independent (see fig.3b, col.4 lines 17-62 and col.5 lines 4-58).

As to claim 27, Carre discloses a tangible, accessible medium comprising program instructions which are computer executable to implement:

a metadata gateway receiving a request to encode type information from an object request broker (ORB fig.3a) (see abstract, figs.2a, 3a, abstract, col.3 lines 18-55 and col.5 lines 4-38),

translating the type information from an interface definition language to a database format storing the type information in a metadata repository (CMISE/IDL fig.3a) (using IDL protocol translation services, see col.5 lines 39-65), wherein the type

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information is stored in a database format in the metadata repository (see see col.6 lines 10-35).

As to claim 28, Carre discloses translating the type information from the database format to an abstract syntax notation and then translating the type information from the abstract syntax notation to the interface definition language (using semantic conversions, see col.1 lines 34-55 and col.5 line 60 to col.6 line 21).

As to claim 29, Carre discloses translating an abstract syntax notation (ASN1) (see col.5 lines 39-58).

As to claim 30, Carre discloses translating the type information from the abstract syntax notation to an object specification language and translating the object specification language to the interface definition language (semantic conversions, see col.1 lines 34-55 and col.5 line 60 to col.6 line 21).

As to claim 31, Carre discloses the interface definition language is class independent (see fig.3b, col.4 lines 17-62 and col.5 lines 4-58).

***Claim Rejections - 35 USC § 103***

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

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(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

6. Claims 6, 13, 15, 16 are rejected under 35 USC 103(a) as being unpatentable over Carre, US pat. No.5,758,186 in view of Kung et al., US pat. No.6,775,267.

As to claims 6, 13, 15, 16, Carre 's teachings still applied as in claim 1 above.

Carre further discloses translating data type from the data base format (using semantic conversions, see col.1 lines 34-55 and col.5 line 60 to col.6 line 21). Carre does not specifically disclose via an IIOP, a telephone system and a network switch. However, Kung discloses disclose via an IIOP, a telephone system and a network switch (see figs.1, 2, abstract, col.4 lines 2-59 and col.11 line 66 to col.12 line 51). It would have been obvious to one of the ordinary skill in the art at the time the invention was made to utilize Kung's teachings into the computer system of Carre to process data information because it would have provided broadband access capabilities or enhanced services for use in conjunction with a packetized network as Internet Protocol based system infrastructure.

***Response to Arguments***

7. Applicant's arguments with respect to claims 1-31 have been considered but are moot in view of the new ground(s) of rejection.

***Other prior art cited***

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.
- a. Hamilton et al, US pat. No.5,758,186.
  - b. Shank et al., US pat. No.6,445,776.

***Conclusion***

9. Claims 1-31 are *rejected*.
10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Khanh Dinh whose telephone number is (571) 272-3936. The examiner can normally be reached on Monday through Friday from 8:00 A.m. to 5:00 P.m.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Zarni Maung, can be reached on (571) 272-3939. The fax phone number for this group is (571) 273-8300.

*A shortened statutory period for reply is set to expire THREE months from the mailing date of this communication. Failure to response within the period for response*

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*will cause the application to become abandoned (35 U. S. C . Sect. 133). Extensions of time may be obtained under the provisions of 37 CFR 1.136(A).*

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Khanh Dinh  
Patent Examiner  
Art Unit 2151  
10/30/2005